

Doc. No. Rev. No. NP-MSS-TYPE-111

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Material Specification Sheet

NP 111 SOLDER PASTE (Sn99.0Ag0.3Cu0.7)

NP 111 is halogen-free solder paste that meets the standards of modern lead-free soldering for both high-mix and high-volume circuit assemblies.

- 1. **NP 111** lead-free solder paste has been formulated to give excellent printing and soldering performance in cold/dry and hot/humid climate.
- 2. It is designed for stencil printing in a surface mount process where post reflow cleaning is not required.

PRODUCT INFORMATION

. Alloy: Sn99.0Ag0.3Cu0.7

. Melting temperature: $216 - 227^{\circ}$ C

. Metal %: 88.5±0.2(%) . Powder Sizes: Type #4 . Packaging Sizes: 500 Gms.

If the paste is properly stored, its composition prevents crusting and ensures the rheological properties – excellent printability, stable and viscosity.

FEATURES & BENEFITS

- Uniform and brilliant joint formation no solder debris and low void content.
- Wide reflow profile window with good solderability.
- Excellent solder spread.
- Cosmetically clean appearance no dark or cracked residue.
- No-clean formulation if desired, residue can be removed with standard cleaners and ultrasonic energy.
- Delivers consistent print performance even after 8 hours of continuous use.

GUIDELINES FOR USE

It is recommended to use the paste in the working environment at 18 to 27°C under 30-60% RH.

NP 111 solder paste should be stored refrigerated upon receipt at 5-15⁰C in its original unopened container which will be sufficient to maintain a nominal shelf life of four months. It should be permitted to reach room temperature before unsealing its package prior to use with the recommended operating conditions to prevent moisture condensation and stir well prior to use.

CMD : S. K. Gupta
Tech. Head : Dr. Mrs Kamlesh Gupta

: Dr. mrs Kamiesh Gupta (PhD Chemistry) **NATIONAL PRODUCTS**

An ISO 9001: 2008 Certified

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The SIR of the flux residues is high. The solder paste is insensitive to temperature and humidity. They display no tendency to create solder balls on chip resistors and capacitors.

TECHNICAL DATA

Activity Level : ROLO

Halide Content : Halide Free(By Titration)

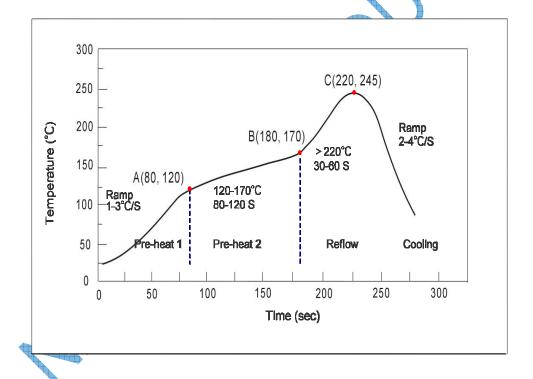
Copper Plate

Corrosion Test : Pass

Viscosity : $180 \pm 20 \text{ Pa.s}$

REFLOW

Reflow can be done under air or an inert atmosphere with the following profile.



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